

## Comments about "Earth 3.0"

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My position can be  
dramatically stated:

Earth and everything on it  
is increasingly artificial.  
"Nature" no longer exists.

By "nature" I mean  
"processes and places  
entirely uninfluenced  
by human activities"

By "artificial" I mean  
entirely or largely  
made or influenced  
by human activity

All "once-natural" processes  
are now more or less  
"artificial"  
Meaning  
"influenced by  
human activities."

I am NOT saying  
that humans not part of  
nature,  
broadly understood.

Of course humans are  
a part of nature!

Neither am I saying that  
human influence on the rest  
of nature is somehow  
"unnatural".

Since humans are part of  
nature,  
what we do must  
by definition be "natural."

Nonetheless, humans have  
substantially modified  
themselves  
and their environment  
from what they were  
when they first emerged  
as *homo sapiens*, *sapiens*  
roughly 50,000 years ago.



As a consequence,  
all once-natural processes  
now operate the way they do  
in part because of  
human activities.

We understand  
some once-natural processes  
  
individually fairly well  
some poorly  
some not at all  
and do not understand the  
totality of their interactivity  
at all.

We did not intend  
to impact these  
once-natural processes.

The impact is an  
unintended by-product  
of other human intentions,  
for the most part.

Nonetheless, we humans  
must assume responsibility  
for what we have done.

We must learn  
"to govern evolution"  
(title of a book written  
some time ago by  
Walter Truett Anderson)

Anderson says it is too late  
to say we should wait  
until we understand nature  
better  
before we undertake  
this obligation.

Such advice is like telling  
a 13 year old that  
she should wait a few years  
until she has gone to college  
before entering puberty  
so she will have the wisdom  
necessary to handle  
the changes  
of puberty better.

That may be true,  
but it is not helpful.

She WILL enter puberty  
and have to deal with it.

So also, humanity HAS  
created increasingly  
artificial environments and  
must learn how to invent  
and govern new ones.  
It is far too late for humans  
to decide they should  
stop and learn more.



So far, I have only focused  
on  
what humans and their  
once-natural  
biological environment.

But there is much more to it  
than this.

Humans live in completely  
artificial and increasingly  
virtual  
cultures and built  
environments  
that are entirely  
human inventions.

While human capability  
of speech depends on  
biophysical properties  
unique to humans,  
human spoken languages  
are entirely artificial,  
while written languages are  
even more obviously so.

The human ability to  
imagine and describe  
entirely imaginary worlds

and eventually to write,  
depict, enact, and  
otherwise record them  
reached great heights  
recently  
with the creation first of  
theaters, novels and  
board games

then with the creation of  
radio, movies,  
and television,  
and now with  
virtual realities  
and interactive  
electronic video games.

More people spend time  
in, worrying about, and  
interacting with  
imaginary and  
artificial people  
and situations  
than with those in the  
"real world" around them.

The very idea of modern  
"democratic government"  
also assumes that humans  
are not at the mercy of  
nature, gods, or kings,  
but can make up and follow  
their own rules and so  
govern themselves  
individually and collectively.



The emergence of  
genetically-modified or  
engineered humans and  
posthumans as well as of  
artificially-intelligent beings  
and cultures  
is also expected  
over the 21<sup>st</sup> Century.

The Search for  
Extra-Terrestrial Intelligence  
and the field of Astrobiology  
suggests the existence of  
forms of life and intelligence  
that did not originate on  
Earth  
which humans might  
eventually encounter.

For more discussion about  
this,  
and an extensive  
bibliography, see

<<http://www.futures.hawaii.edu/dator/artificiality/DatorAssumeRose.html>>

Humans on Earth  
need all the help  
they can get  
to learn how  
"to govern evolution"

Space research  
can help them

There has been research  
and experiments  
by space agencies,  
industries, and others  
about creating  
viable environments  
for humans in space.